

2009

Report on State Progress Toward Meeting Wind Power Goals, 2009

Maine Governor's Office of Energy Independence and Security

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Report on State Progress Toward Meeting Wind Power Goals

(PL 2007, c.661, sec.A-8 / LD 2283)

Wind Power Goals:

- At least 2,000 Megawatts (MW) of installed capacity by 2015;
- At least 3,000 MW of installed capacity by 2020, of which there is a potential to produce 300 MW of offshore wind power.



Assessment of Progress

3 Grid-Scale Wind Projects in Operation:
103.5 MW installed capacity

- Mars Hill, (First Wind) - 42 MW
- Freedom, (Beaver Ridge) – 4.5 MW
- Stetson I, (First Wind) – 57 MW
- Total: 103.5 MW



Assessment of Progress

3 Grid-Scale Projects in Development:

272.5 MW of potential capacity

- Kibby, (Transcanada) – 132 MW
- Stetson II, (First Wind) – 25.5 MW
- Rollins Mtn, (First Wind) – 60 MW
- Record Hill, (Independence) – 55 MW
- Total: 272.5 MW



Assessment of Progress

4 Grid-Scale Projects in Discussion Phase:

309.5 MW potential capacity

- Roxbury, (Longfellow Wind) – 50 MW
- Bridgewater, (Horizon/Aroostook) – 195 MW
- Oakfield, (First Wind) – 45-60 MW
- Fox Island, (Fox Island, LLC) – 4.5 MW
- Total: 309.5 MW



Assessment of Progress

- State of Maine has met 5.17% of wind power goals with 103.5 MW of installed capacity. (Based on 2015 goal.)
- Could rise to 18% if all 272.5 MW of potential capacity are constructed.
- Could rise to 34% if all 309.5 MW in discussion phase are constructed.



Assessment of Progress

- At the current rate, Maine will need to bring online 263 MW of capacity a year, starting in 2010 to meet the state's wind power development goals by 2015.
- Ambitious goals but OEIS doesn't recommend revising goals at this time.

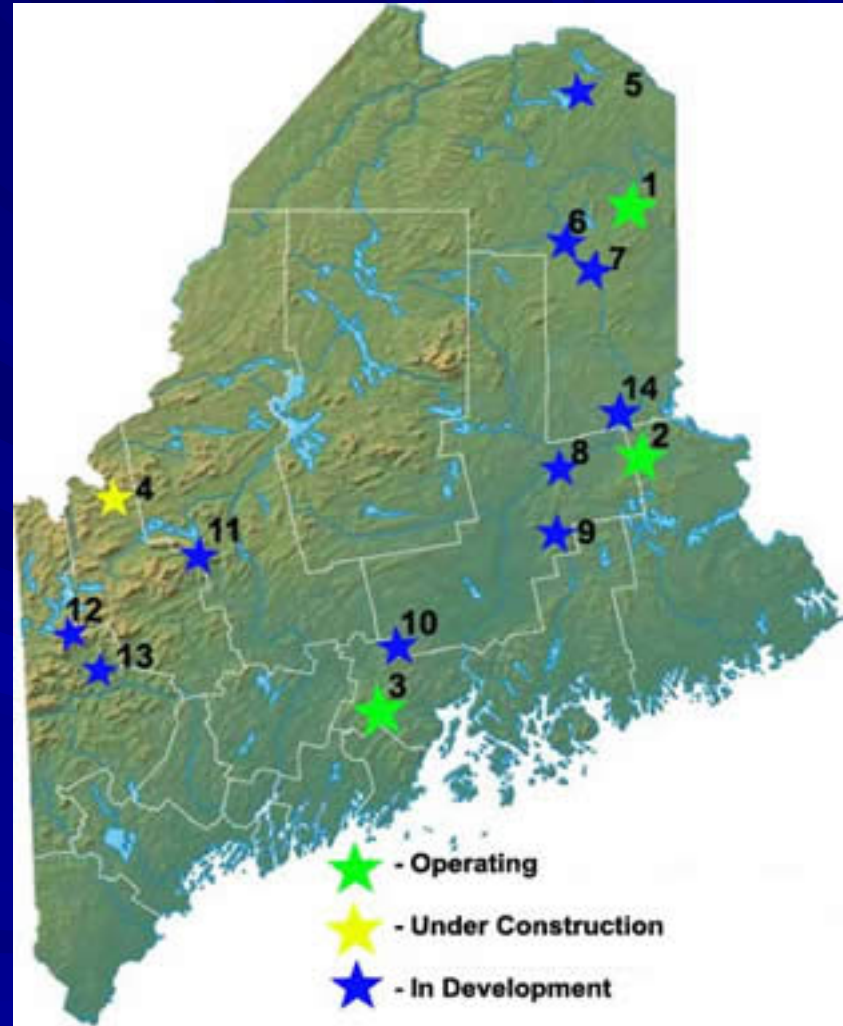


Maine Wind Power Development Map

1. Mars Hill
2. Stetson I
3. Freedom
4. Kibby
- (5. Aroostook County Wind, Future Phases)
6. Bridgewater
7. Oakfield
8. Rollins Mtn.
- (9. Passadumkeag Mountain, Grand Falls Twp)
- (10. Mount Harris, Dixmont)
- (11. Stewart Mountain, Highland Plantation)
12. Record Hill
13. Roxbury
14. Stetson II

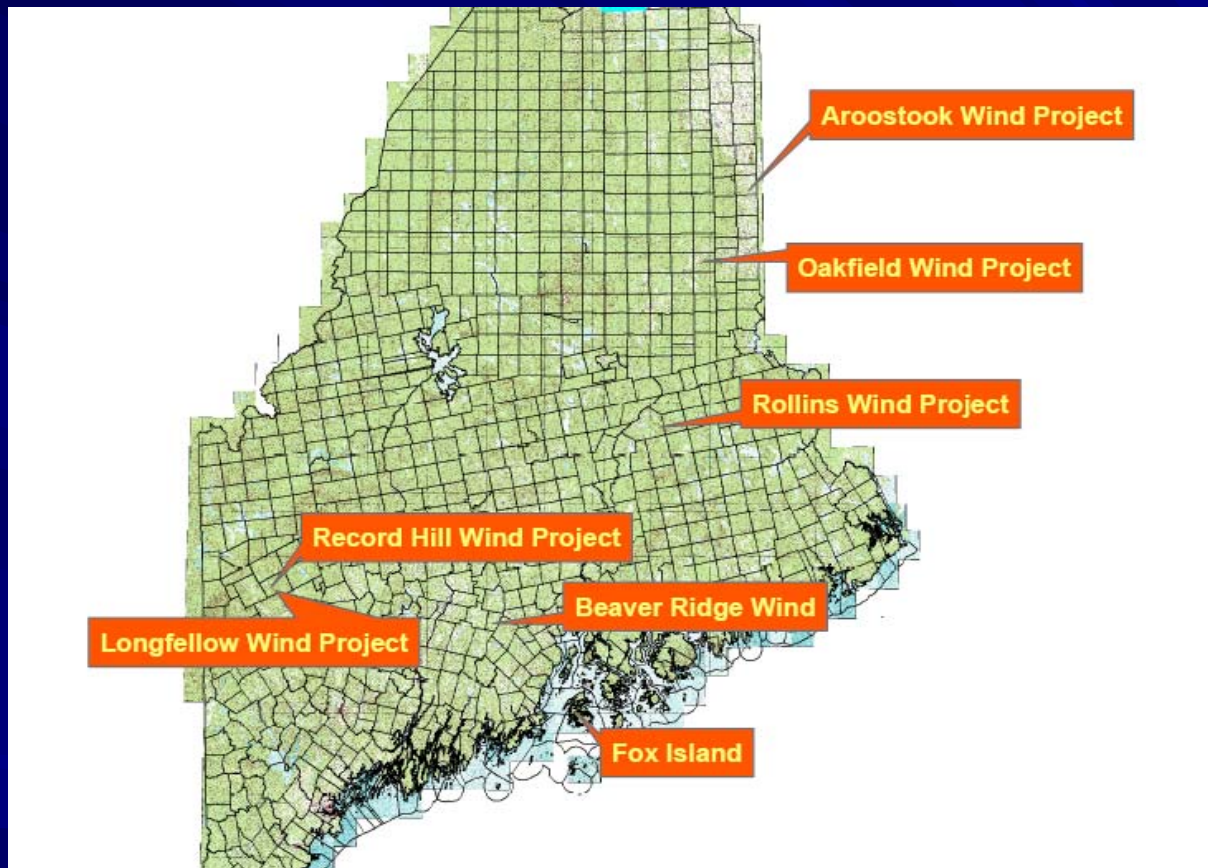
(Projects in parentheses are proposed and not included in OEIS report or projections.)

Credit: Natural Resources Council of Maine



Governor's Office of Energy Independence & Security

DEP Wind Power Development Projects Map



Source: Maine DEP



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“Tangible Benefits”

- Grid-scale wind power developments in Maine must provide significant “tangible benefits”.
- OEIS must report on tangible benefits to UTE committee annually including whether resources are needed to carry out analysis (Jan 15, 2009).
- DEP/LURC makes findings and undertakes quantitative analysis of tangible benefits (with other agency comments if requested).



Tangible Benefits

- Tangible benefits are “environmental or economic improvements attributable to the construction, operation and maintenance of an expedited wind energy development.”
- Including: purchase of local materials, construction related employment, reduced property taxes, reduced electrical rates, natural resources conservation, operations/maintenance jobs, and others.



Tangible Benefits

- Tangible Benefits policy guidance to determine “significant” was developed by interagency group.
- Stetson II only project so far to fall under new law. (LURC takes up in Feb, 09.)
- OEIS does not recommend any additional funding mechanism at this time for analysis of tangible benefits, but may in the future.



Tangible Benefits

First Wind's Stetson Development Area:

Examples of tangible benefits

- \$50 million of \$65 million project costs were spent in Maine.
- Including: local jobs, land lease payments to landowners, reduced property taxes (Mars Hill mil rate dropped from \$25 - \$20), reduced energy price volatility, and environmental benefits of clean, renewable power.



Permitting Processes

- OEIS conferred with DEP, LURC and wind developers on new streamlined process.
- Consensus is it's "too early to tell" to determine major policy successes or failures.



Identified Successes

- Maine is a leader in wind power development with 103.5 MW of installed capacity.
- DEP and LURC collaborated to develop and adopt a consistent permitting process. (DEP is responsible for organized territories; LURC unorganized territories.)
- Meaningful benefits are being delivered to Maine communities.
- More projects are being planned and developed.



Projections

- High degree of interest in developing wind resources in Maine.
- Numerous additional wind projects are in the discussion phase.
- No new technology trends are on the horizon that would affect Maine's permitting process.
- The economy, credit crunch and the difficulty siting transmission could have a negative impact on wind development in Maine.

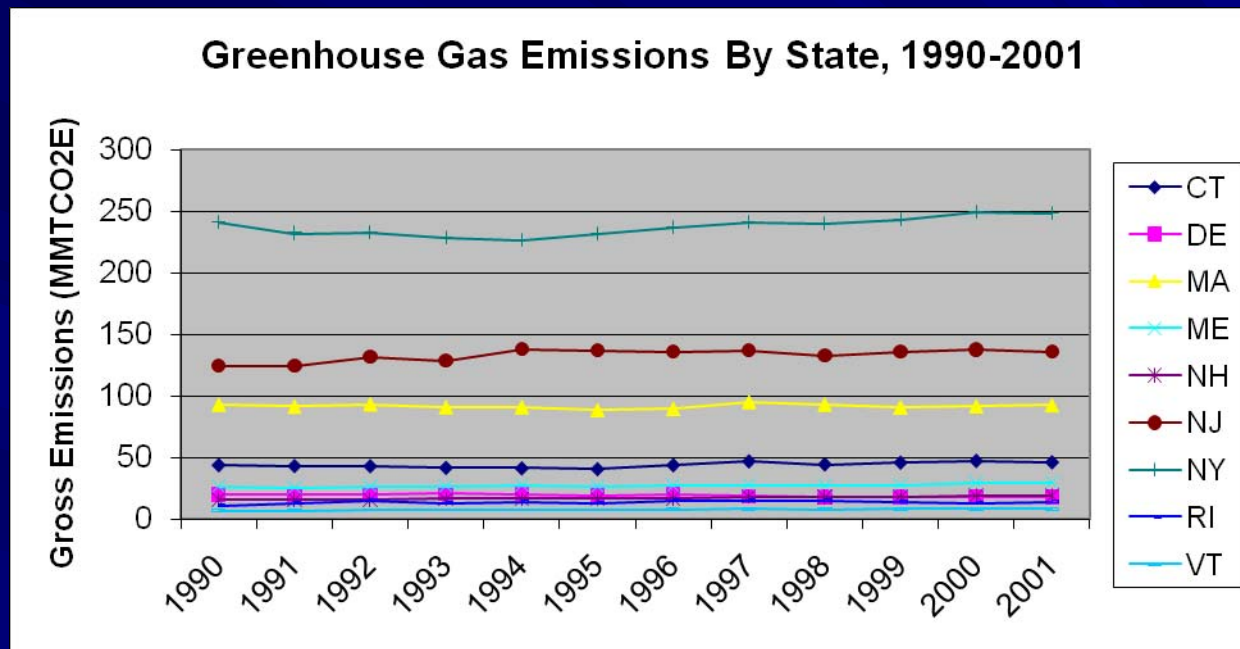


Greenhouse Gas Emissions Reductions

- The 2003 law (PL 237) a Climate Action Plan for Maine includes goals to reduce GHG emissions to 1990 levels by 2010, 10% below those levels in 2020, and by a sufficient amount to avert the threat of global warming over the longer term, which could be as much as 75%.
- DEP reported in Jan, 2008 that the 11 most important policy actions modeled to account for more than half of the target GHG reductions in the Climate Action Plan are underway.
- For example: RGGI, RPS, Clean Car rules, energy efficiency and renewable power generation.



Greenhouse Gas Emissions Reductions



**2006 DATA WILL BE AVAILABLE SHORTLY FROM NESCAUM AND WILL BE FORWARD TO UTE.*

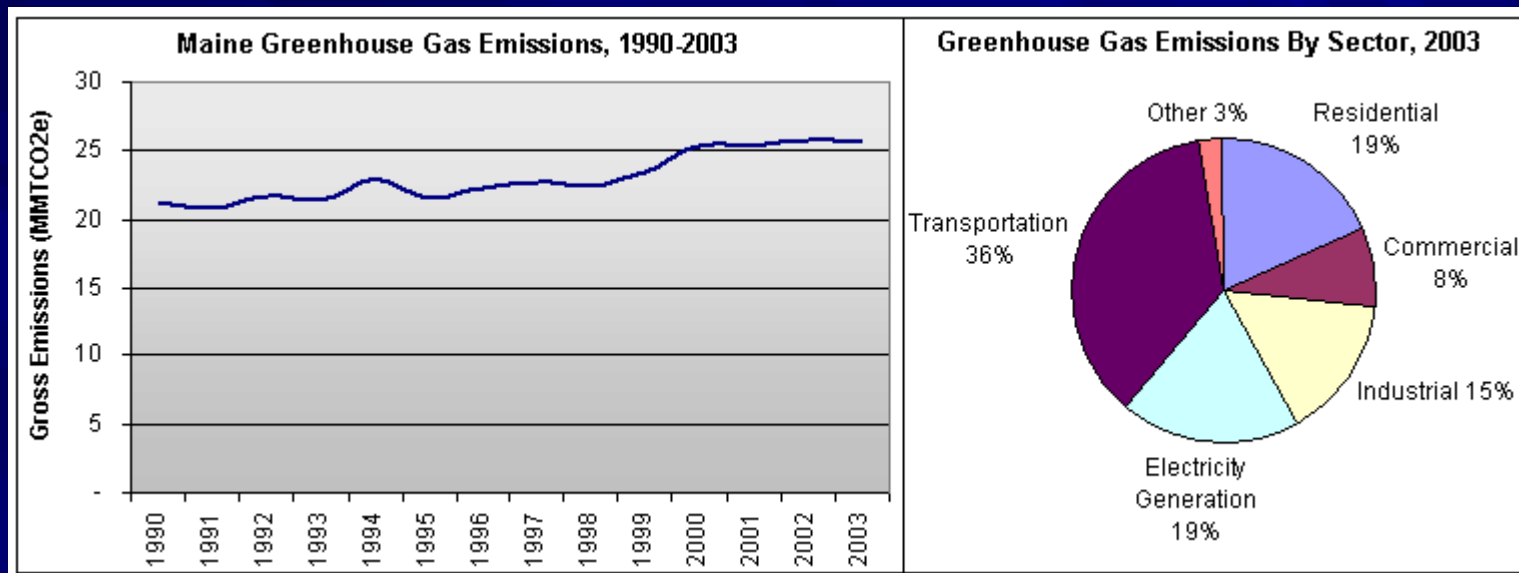
***Maine DEP will report in 2012 on progress compared to baseline data in Climate Action Plan.*

Source: NESCAUM



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Greenhouse Gas Emissions Reductions



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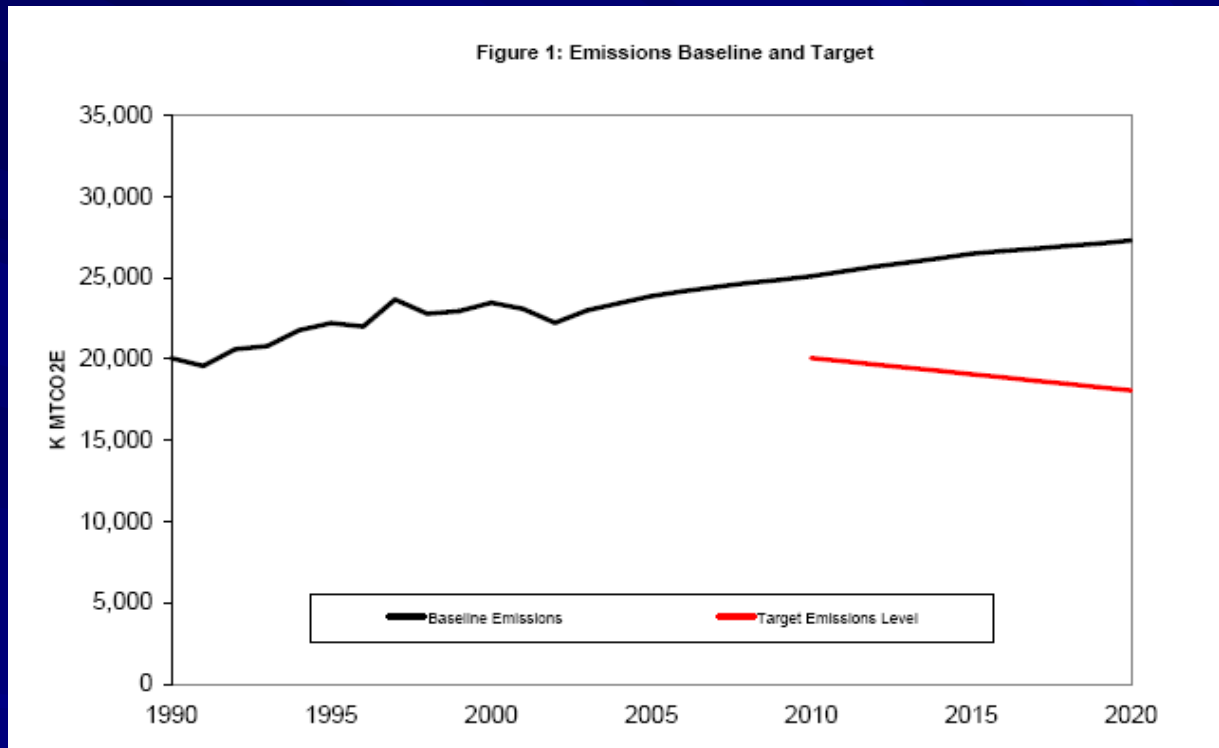
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Source: NESCAUM



Climate Action Plan

GHG Emissions Baseline



Governor's Office of Energy Independence & Security

Report on State and Municipal Wind Generation Development (PL 2007, c.671 / LD 2266)

- OEIS is required to assist with the development, design and construction of wind and other renewable energy projects at state agencies, municipalities, electric co-operatives, and other similar entities.



OEIS Responsibilities

- Monitor developments in technology and financial opportunities for potential project development.
- Develop information resources to assist with project development.
- Form one or more advisory groups to help carry out responsibilities.



Progress

- OEIS convened Advisory Group of “experts”, holding regular meetings.
- Identified numerous potential funding sources for projects.
- Working to develop a strategic plan (in collaboration with the “small wind working group”) that includes outreach and education to develop and disseminate information to promote project development.

